## Claims

1. An ion generator comprising:

a first electrode;

5 a second electrode;

a voltage generator electrically coupled to the first electrode and the second electrode in order, when energized, to create a flow of air in a downstream direction from the first electrode to the second electrode;

wherein said first electrode is one of (1)slack, (2) has curves, and (3) is coiled.

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2. An ion generator comprising:

a first electrode;

a second electrode;

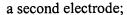
a voltage generator electrically coupled to the first electrode and the second electrode in order, when energized, to create a flow of air in a downstream direction from the first electrode to the second electrode;

wherein said first electrode is slack

- The ion generator of claim 2 wherein said first electrode has a length at least fifteen percent
   greater than if the first electrode were taught.
  - 4. The ion generator of claim 2 wherein said first electrode has a length that is about fifteen percent to thirty percent greater than if the first electrode were taught.

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25 S. An ion generator comprising: a first electrode;



a voltage generator electrically coupled to the first electrode and the second electrode in order, when energized, to create a flow of air in a downstream direction from the first electrode to the second electrode;

5 wherein said first electrode is a coil.

- 6. The ion generator of claim 5 wherein said first electrode is at least two time longer than if the first electrode were taught.
- 7. The ion generator of claim 5 wherein said first electrode is about two to about three times longer than if the first electrode were taught.
  - An ion generator comprising: a first electrode;

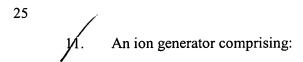
15 a second electrode;

a voltage generator electrically coupled to the first electrode and the second electrode in order, when energized, to create a flow of air in a downstream direction from the first electrode to the second electrode;

wherein said first electrode has a plurality of curves.

- 9. The generator of claim 8 wherein said plurality of curves are in the same plane.
- 10. The generator of claim 8 wherein said first electrode is at least ten percent longer than if the first electrode were taught.

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a first means for providing an electrode which has an length greater than if the electrode were taught;

a second electrode; and

a voltage generator electrically coupled to the first electrode and the second electrode in order, when energized, to create a flow of air in a downstream direction from the first electrode to the second electrode.

In an ion generator comprising a first electrode and a second electrode, and a voltage generator electrically coupled to the first electrode and the second electrode in order, when energized, to create a flow of air in a downstream direction from the first electrode to the second electrode, the improvement including:

said first electrode being slack in order to enhanced emissivity.

In an ion generator comprising a first electrode and a second electrode, and a voltage generator electrically coupled to the first electrode and the second electrode in order, when energized, to create a flow of air in a downstream direction from the first electrode to the second electrode, the improvement including:

said first electrode including a plurality of curves in order to enhanced emissivity.

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In an ion generator comprising a first electrode and a second electrode, and a voltage generator electrically coupled to the first electrode and the second electrode in order, when energized, to create a flow of air in a downstream direction from the first electrode to the second electrode, the improvement including:

said first electrode being coiled in order to enhanced emissivity.

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15. A method for generating ions including the steps of:

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providing a first electrode that is one of (1) slack, (2) has curves and (3) has coils providing a second electrode; and

providing a voltage generator electrically coupled to the first electrode and the second electrode in order, when energized, to create a flow of air in a downstream direction from the first electrode to the second electrode.

- 16. The method of claim 15, including providing a first electrode that is at least fifteen percent longer than if the first electrode were taught.
- 17. The generator of claim 1 wherein said first electrode is an ion emitter and the second electrode is a collector of particulate matter.
  - 18. The generator of claim 1 wherein said first electrode is positively charged and the second electrode is negatively charged.

19. The method of claim 15, including providing a first electrode that is about two to about three times longer than if the first electrode were taught.

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A device for conditioning air including

a housing with an air inlet and an air outlet;

a first electrode;

a second electrode;

said first electrode located closer to said air inlet than said second electrode;

said second electrode located closer to said air outlet than said first electrode;

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a potential generator electrically coupled to the first electrode and the second electrode in order, when energized, to create a flow of air in a downstream direction from the first electrode

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to the second electrode; and

said first electrode is one of (1) slack, (2) has curves, and (3) is coiled.

21. A device for conditioning air including

a housing with an air inlet and an air outlet

a first means for providing an electrode which has an length greater than if the electrode were taught;

a second electrode;

said first electrode located closer to said air inlet than said second electrode;

said second electrode located closer to said air outlet than said first electrode; and

a potential generator electrically coupled to the first electrode and the second electrode in

order, when energized, to create a flow of air in a downstream direction from the first electrode

to the second electrode.

- 22. The generator of claim 1 wherein when said voltage generator is energized, ions are generated at said first electrode and directed toward said second electrode.
- 23. The ion generator of claim 1 wherein said second electrode is removable by a user for cleaning.

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24. The generator of claim 1 wherein said generator is incorporated in a housing, and said housing comprises an electro-kinetic air transporter-conditioner.

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The generator of claim 1 wherein said generator is incorporated in a housing and, said
 housing comprises an electro-kinetic air transporter-conditioner and said housing has a top and said
 second electrode is removable from said top for cleaning.

26. The generator of claim 1 wherein:

said generator is incorporated in an elongated freestanding housing with a top, and said housing comprises an electro-kinetic air transporter-conditioner; and

wherein said second electrode is elongated and is removable from said top of said housing.

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27. The generator of claim 1 wherein:

said generator is incorporated in an elongated housing with a top and, said housing comprises an electro-kinetic air transporter-conditioner; and

wherein said second electrode is elongated and is at least partially removable from said top of said housing.

28. The generator of claim 1 wherein:

said generator is incorporated in an elongated freestanding housing with a top, and said housing comprises an electro-kinetic air transporter-conditioner; and

wherein said second electrode is elongated and is telescopingly removable through said top of said housing.

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A device for conditioning air, comprising:

a housing having an inlet and an outlet;

an ion generator disposed within said housing, that creates an airflow in a downstream direction, when energized, from said inlet to said outlet, including:

a first electrode created from a wire-shaped element, and formed into a coil-shape;

a second electrode located downstream of said first electrode;

a high voltage generator electrically coupled to said first and second electrode.

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30. The device as recited in claim 29, wherein said wire-shaped element has a total length two

to three times greater than the height of said first electrode.

31. The device as recited in claim 29, wherein the diameter of said coil-shape is approximately ten times greater than the diameter of said wire-shaped element.

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- 32. The device as recited in claim 29, wherein said first electrode is an ion emitting surface, that can electrically charge particles contained within the airflow.
- 33. The device as recited in claim 29, wherein said second electrode has a polarity opposite of said first electrode, which second electrode collects the electrically charged particles.

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A device for conditioning air, comprising:

a housing having an inlet and an outlet;

an ion generator disposed within said housing, that creates an airflow in a downstream direction, when energized, from said inlet to said outlet, including:

a first electrode, created from a wire shaped element, and formed into a curved configuration;

- a second electrode located downstream of said first electrode;
- a high voltage generator electrically coupled to said first and second electrode.

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- 35. The device as recited in claim 34, wherein said wire-shaped element is approximately 10-50% longer than the height of said first electrode.
- 36. The device as recited in claim 34, wherein said first electrode is an ion emitting surface that can electrically charge particles contained within the airflow.

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- 36. The device as recited in claim 36, wherein said second electrode has a polarity opposite of said first electrode, which second electrode can collect the electrically charged particles.
- 37. The device of claim 21 wherein said housing has as top and said second electrode is removable through said top.
  - 38. The device of claim 21 wherein said housing is an elongated freestanding housing with a top and said second electrode is removable through said top of said housing.
- The device of claim 21 wherein said housing is an elongated housing with a top and said second electrode is removable through said top of said housing.

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